

APPENDIX 2

Competitor Profile: MCI WorldCom/MFS

MCI WorldCom Overview

MCI WorldCom provides long distance services nationwide and in over 240 countries worldwide. As part of its full service offerings, it has a robust offering of voice and data special access services. The company has stated that, "MCI WorldCom's network is so vast it can carry all of the data traffic of all the other carriers combined....We're even considered the carrier's carrier – the acknowledged leader in the industry." MCI Worldcom provides a comprehensive portfolio of technologically advanced private line and special access services, including digital data DSO, DS1, DS3 and SONET services, as a seamless facilities based, one stop provider of local, long distance and global services.

With the acquisition of MFS Communications and Brooks Fiber, one of the largest Competitive Access Providers originally focused exclusively on special access and dedicated transport, MCI WorldCom is in a position of providing local services in almost 70 markets, including Boston, New York, northern New Jersey, Philadelphia, Baltimore, Wilmington, De, Washington, DC and Richmond, Va. The merger of WorldCom, MFS and UUNET closed at the end of 1996, and WorldCom became one of the world's largest telecommunications companies, offering local, long distance, Internet, and international service over an advanced fiber optic network with a total of 20,000 miles of cable in the US. MCI WorldCom is also the world's largest provider of Internet services through its UUNET subsidiary.¹ WorldCom currently has more than 775,000 customers throughout the US and carries 44% of the global private line traffic.² One financial analyst estimates that as a result of the MFS and Brooks Fiber acquisitions, the new MCI WorldCom can self supply more than 70% of its access services, and, "given the current expansion plans," that figure should grow to 90% ("WorldCom, Inc., Company Report," Salomon Smith Barney, April 9, 1998).

WorldCom's recent merger with MCI created a company with an international presence in 240 countries and fiber networks in over 100 US markets. The new company serves 22 million customers worldwide.³ The combined company, MCI WorldCom, has approximately \$30 billion in revenue in 1998. MCI WorldCom is the second largest carrier of international voice traffic in the world.⁴ As stated in a company press release, "Through the combination of MCI, Brooks Fiber and MFS, MCI WorldCom has the

¹ 1998 Faulkner Information Services, *WorldCom Company Profile*.

² 1998 Faulkner Information Services, *WorldCom Company Profile*.

³ WorldCom website.

⁴ WorldCom website.

largest national 'local footprint' in the US."⁵ Recent advertising by the company notes that "MCI WorldCom's network is so vast it can carry all of the data traffic of all the other carriers combined....We're even considered the carrier's carrier – the acknowledged leader in the industry."⁶

MCI WorldCom owes its existence to a series of mergers and acquisitions that began in 1987. By 1998, some 25 companies had been consolidated into a single corporate entity. Most notable among these were MCI, LDDS Communications, Brooks Fiber Properties, MFS Communications, UUNET, and WilTel. MCI WorldCom is now the second largest long distance company in the US with 25% market share, a major competitor in local services and the largest CLEC, and an acknowledged leader in information technology and data networking.⁷

MCI WorldCom operates in both retail and wholesale modes. The retail side, which is handled by WorldCom, includes voice, data, private line, switched access, frame relay, ATM, and the manufacture of voice and data equipment. The wholesale side, which is handled by WilTel, includes the provision of voice services to AT&T, MCI, Sprint, Frontier, and others for resale to their customers. The WilTel group also handles WorldCom's international services.⁸

The MCI WorldCom network is built primarily with Ericsson AXE-10 switches. The company concentrates on wiring whole buildings and enhancing the demand for its CLEC, special access and other services in those buildings. Areas in the Bell Atlantic footprint on this network include: ⁹

DE	Wilmington (1993, 12 buildings)
MA	Boston (1989, 138 buildings, 1 voice switch, 1 data switch)
MD	Baltimore (1989, 60 buildings, 1 data switch)
NJ	Northern NJ (1993, 49 buildings, 2 voice switches)
NY	Albany (1994, 22 buildings). Buffalo (1994, 35 buildings, 1 voice switch) New York (1991, 199 buildings, 1 data switch) Rochester (1994, 79 buildings) White Plains (1995, 22 buildings)

⁵ "MCI WorldCom Unveils New "On-Net Communications Services for Businesses", Company Press Release, September 28, 1998.

⁶ Advertising Supplement to *The Wall Street Journal*, October 1, 1998.

⁷ 1998 Faulkner Information Services, *WorldCom Company Profile*.

⁸ 1998 Faulkner Information Services, *WorldCom Company Profile*.

⁹ New Paradigm Resources Group, *1998 Annual Report on Local Telecommunications Competition*.

PA Philadelphia (1989, 59 buildings, 1 data switch)
Pittsburgh (1990, 30 buildings)

VA Reston (1 voice switch)
Richmond (1995, 35 buildings, 1 voice switch)

DC Washington (1987, 335 buildings, 1 voice switch, 1 data switch)

The Brooks Fiber networks in the Bell Atlantic footprint includes:¹⁰

MA Springfield (1992, 1 voice switch, 11 buildings)

ME Portland (1 voice switch)

NH Manchester (1 voice switch)
Nashua (1 voice switch)

NY Long Island (1 voice switch)
White Plains (1997, 1 voice switch)

RI Providence (1994, 1 voice switch, 33 buildings)

MFS/WorldCom Financials

MCI WorldCom's revenue and income is expected to show huge increases as it wraps its 1996-97 acquisitions into the corporate structure. For example, had the MFS and UUNET acquisitions been included, MCI WorldCom would have reported revenues of \$5.6 billion, a \$1.2 billion increase over its own revenue.¹¹

The 1997 "CLEC" revenue for MFS/WorldCom is broken out as follows: Switched Local Service - 30%, Dedicated Access Transport - 35%, and Data (including Internet Access) - 35%.¹²

MFS/WorldCom's *Total* Revenues for 1997 break out as follows: Domestic Switched - 54%, Domestic Private Line - 21%, International - 11%, Internet - 8%, and Other - 6%.

Brooks Fiber, acquired by WorldCom in January 1998, grew 1997 revenues at a rate of 183% over the previous year. The 1997 revenue breakdown is as follows: Local Service - 28%, Long Distance - 27%, Dedicated Access/Transport - 33%, Data (including Internet Access) - 5%, and Other - 7%.¹³

¹⁰ New Paradigm Resources Group, *1998 Annual Report on Local Telecommunications Competition*.

¹¹ 1998 Faulkner Information Services, *WorldCom Company Profile*.

¹² New Paradigm Resources Group, *1998 Annual Report on Local Telecommunications Competition*.

¹³ New Paradigm Resources Group, *1998 Annual Report on Local Telecommunications Competition*.

The MCI WorldCom Acquisition Spree -- Financial Implications

MFS/UUNET

On August 26, 1996, WorldCom announced an agreement to acquire MFS, and UUNET Technologies which MFS had previously acquired, for a total of \$14 billion. MFS, one of the largest Competitive Access Providers (CAPs) in the US, had been providing services since 1987. At the time of the merger, MFS had over 5 million circuits in service and over 11,000 buildings on the network nationwide. The combined companies have revenue of approximately \$5.4 billion with over 500,000 customers worldwide. As a result of this merger, WorldCom gained in three areas: (1) it immediately became a player in the local service market, and (2) it obtained a formidable Internet presence.¹⁴ MFS provides voice, data, video and systems integration services and claims to operate one of the fastest networks in the industry.¹⁵ The company offers a full range of service nationwide, including dedicated access such as DS0, DS1, DS3, and OC3, and is at the forefront of many technological advances.

Brooks Fiber Properties

In January 1998, WorldCom acquired Brooks for \$2.9 billion, including the assumption of \$500 million in debt. Brooks started operations in 1993 as a provider of competitive local telecommunications services in mid-sized cities.¹⁶ According to Brooks, its mission was to provide business, government, and carrier customers with a broad array of voice, data, and video telecommunications services on its digital fiber optic networks, backed by high quality customer service. "Brooks Fiber...built a reputation for providing high quality service in smaller cities and, according to one analyst's report, was the first [CLEC] to achieve significant success in using unbundled local loops."¹⁷

During 1997, Brooks acquired Phoenix Fiberlink and Metro Access Networks for \$89 million. In addition, Brooks acquired 60% of MaineCom Services, which it used to construct and operate facilities in Portland, Maine; Nashua and Manchester, NH, and in other New England markets.¹⁸ With the Brooks acquisition, WorldCom gained entry into 34 additional local markets, including a strong presence in New England, particularly in New Hampshire and Maine.

MCI WorldCom acquisition of the network operations of CompuServe and America Online

Completed at the end of January 1998, this merger was valued at \$1.2 billion. The merger gave WorldCom control of three major Internet networks (UUNET, ANS, and

¹⁴ 1998 Faulkner Information Services, *WorldCom Company Profile*.

¹⁵ 1997 Faulkner Information Services, *MFS Company Profile*.

¹⁶ New Paradigm Resources Group, *1998 Annual Report on Local Telecommunications Competition*.

¹⁷ Federal Communications Commission, Memorandum Opinion and Order, CC Docket No. 97-211, September 14, 1998, Paragraph 174.

¹⁸ New Paradigm Resources Group, *1998 Annual Report on Local Telecommunications Competition*.

CompuServe Network Services). In addition, AOL signed a five-year contract for WorldCom to supply its networking needs.¹⁹

The Merger with MCI

In 1996, MCI had \$18.5 billion in revenues, of which \$174 million (just 1%) was for Local Service provided by MCI Metro. In 1997, the local service revenue figure nearly doubled to \$343 million. The CLEC revenue breakdown for 1997 was: Switched Local Service (including access) - 30%, Dedicated Access/Transport - 65%, and Data (including Internet Access) - 5%. 1998 Local Service revenue is projected to nearly double again to \$600 million.

MCI WorldCom will offer local service over its own facilities, which include more than 9,000 route miles of local fiber in 100 markets nationwide. The merger provides MCI WorldCom with much more than just MCI Local Service. MCI was already the second largest long distance carrier in the US. MCI was founded in 1968 and initiated operations in 1969 after the FCC and the courts granted it permission to compete against AT&T in the domestic long distance market.

MCI WorldCom estimates that by 1999, operational cost synergies of \$2.5 billion can be achieved.²⁰ Over a period of four years, savings and synergies of \$24 billion in capital expenditures and operational costs are expected.²¹ The FCC noted that, "Applicants claim that these savings will enhance the merged entity's ability to raise capital and will give it greater financial strength. [...] Applicants also maintain that these cost savings should allow the merged entity to build and operate additional local network facilities more quickly and expansively than the two companies could do separately."²² It also concluded "that WorldCom and MCI have made a sufficient showing that, as a result of combining the firms' complementary assets, the merged entity will be able to expand its operations and enter into local markets more quickly than either party alone could absent the merger. [...] The complementary assets of the merged entity include MCI's national brand name, marketing expertise and broad residential base, and WorldCom's extensive local exchange facilities, small and medium business customer base and foreign networks. We also find persuasive Applicants' assertions that the merger will allow them to service multi-location customers over their own networks, and that this will enable such customers to receive higher quality and more reliable services that each company is able to currently offer separately."²³

¹⁹ 1998 Faulkner Information Services, *WorldCom Company Profile*.

²⁰ 1997 Faulkner Information Services, *MCI Company Profile*.

²¹ Federal Communications Commission, Memorandum Opinion and Order, CC Docket No. 97-211, September 14, 1998, Paragraph 195.

²² Federal Communications Commission, Memorandum Opinion and Order, CC Docket No. 97-211, September 14, 1998, Paragraph 195.

²³ Federal Communications Commission, Memorandum Opinion and Order, CC Docket No. 97-211, September 14, 1998, Paragraph 199.

MCI WorldCom Strategy

According to MCI WorldCom, its basic strategy is to gain market share through the acquisition of other companies. The company views telecommunications deregulation and the Internet as opportunities to change the competitive landscape. In MCI WorldCom's view, the current market is driven by an increasing demand for bandwidth, which will become a precious commodity. MCI WorldCom also believes that the future of its business is not in voice calls, but in data calls, hence its moves to acquire substantial Internet backbone capacity. MCI WorldCom is focusing its strategy on three markets: local services, international services, and network development (including Internet services).²⁴

The local services strategy centers on MCI WorldCom as one of the first nationwide carriers to bundle its local and long distance services under the name Intelenet, the name of the MFS network services before its merger with WorldCom. MCI WorldCom is in the process of expanding its footprint in the local market with the acquisitions of MFS and Brooks Fiber. The next step will be to bring the local markets of the former MCI Metro into the WorldCom fold. MCI WorldCom's goal for 1998 is to be able to reach over 70% of the US business market with local service.²⁵

MCI WorldCom's strategy for the international market is to become a facilities based, end-to-end managed services company with local access in key centers, long distance facilities where demand is strong, and a cross-border infrastructure. The company will focus on bandwidth requirements by building out networks based on frame relay/ATM and an Internet backbone. Its goal is to become an independent, integrated, full-service communications provider to the business sector.²⁶

MCI WorldCom continues to rapidly expand its network and Internet backbone via acquisitions. The MCI WorldCom long distance network spans the US using digital fiber optic and microwave technologies. It contains more than 44 million circuit miles and handles an average of three to four million calls per day. MCI WorldCom's backbone network covers 12,000 miles and is currently being upgraded through the implementation of OC-192 equipment to produce an all-SONET network. The ultimate goal of the network upgrade is to provide an optical signal directly to the customer premises. To accomplish this end, MCI WorldCom deployed OC-12 implementation in all major metropolitan areas. The project was completed in 1997 and upgrade to OC-48 is now underway.

MCI WorldCom continues to focus its marketing efforts on expanding to their large business customer base. The market research firm Quality Strategies points out that, "As bundling becomes increasingly popular, the merger will afford the companies a

²⁴ 1998 Faulkner Information Services, *WorldCom Company Profile*.

²⁵ 1998 Faulkner Information Services, *WorldCom Company Profile*.

²⁶ 1998 Faulkner Information Services, *WorldCom Company Profile*.

significant advantage over their competitors. The long-distance strength of WorldCom and MCI coupled with the large local presence of MFS and MCI makes the combined company poised to capture customers interested in bundled telecommunications products.”²⁷ As one analyst noted, “WorldCom is dedicating itself to the sweet spots in the market. There’s nobody that can compare with WorldCom in terms of growth.”²⁸

The companies that make up the MCI WorldCom conglomerate offer a variety of services. An overview of those services is provided below, concentrating on special access and data services.

WorldCom Business Services:

1+ Outbound Services

Toll Free Services

Convene Conference Calling

Paging

Calling Card Service (also Prepaid)

Private Line Services including:

- Burstable DS-1 service
- Digital Private Line Services (including DS-0, DS-1, and DS-3)
- OC-3c and OC-12c Private Line Services (digital, point-to-point services that provide synchronous, full-duplex transmission as a contiguous channel of bandwidth at 155.52M bps or 622.08M bps.
- SONET Services

Internet-related services, including:

- Internet Access, including xDSL service that uses ISDN router to provide IDSL service.
- Internet Backbone Services
- Intranet Service
- Extranet Services
- Web Network Management Services
- Call Manager PC for Windows

Frame Relay, including:

- Metro Frame Relay - Allows for the purchase of local and IXC frame relay service from the same source.

²⁷ Quality Strategies, *Bell Atlantic CLEC Network Descriptions, Southern Territory, First Quarter 1998*, pages 5-6.

²⁸ Guy Woodlief, Prudential Securities. Quoted in “WorldCom 2nd-Quarter Profit Rises Fivefold on Data Sales, *Bloomberg Business News*, July 23, 1998.

- SNA over Frame Relay - Eliminates the need to operate dual networks for LAN and SNA traffic. Customers can supply CPE or allow WorldCom to provide, stage, configure, test, and install the CPE.

ATM Service, including:

- LAN Interconnection ATM Service
- Channel Networking ATM Service
- Switch-to-Switch ATM Service, which can provide real-time video conferencing

Intelnet Integrated Services, which provide full-service DS-1 for local and long distance voice, paging, Internet service, and data services.

International Services, including voice, international dial direct, global calling card, national frame relay (Germany only), international frame relay, international private circuits, Global Transit Internet Connectivity, and Corporate Internet Services.

Packages for Small Business

- Bottom Line Business - Package of services including Switched Outbound, Toll-Free Inbound, and Cellular.
- Messaging Services - Includes national, regional, CityLink, and local alphanumeric and numeric paging.

Wholesale Services

- WilMax - switched and private line services
- Electronic Data Exchange
- Transcend - Unbundled network transport service

SERVICES FROM BROOKS FIBER

With its acquisition of Brooks Fiber Properties, WorldCom acquired a company with a broad series of products, both retail (“Gateway”) and wholesale (“Netway”). While WorldCom can be expected to meld these into its own services, they are included here as evidence of the breadth of special access services offered by Brooks.

Gateway Exchange Access Services include:

- Local Switched Services
- Business Line Service
- Basic Trunk Service

Gateway Private Line Services include:

- GATEWAY DL - Private line service that provides one standard voice channel or data transmission between 9.6K bps and 64K bps
- GATEWAY Frac-T - Fractional DS1 service that allows the customer to purchase bandwidth in increments of 64K bps, from 128K bps to 1.028M bps
- GATEWAY Flex -- Flexible DS1 service that allows the customer to purchase contiguous bandwidth from 128K bps to 1.544M bps
- GATEWAY 1.5--High-capacity DS1 service that may be used to provide 24 voice-grade channels. It may be used as contiguous bandwidth
- GATEWAY 1.5C -- Channelized DS1 service that provides 64K bps circuits
- GATEWAY 1.5H -- Provides 24 64K bps circuits, which terminate as a DS1. Bandwidths may terminate at different locations as one or more DS0 circuits.
- GATEWAY 45--DS3 point-to-point service (45M bps) that is equivalent to 672 voice channels or 28 DS1 channels; recommended for high-bandwidth applications
- GATEWAY 45C -- Channelized DS3 wideband service that provides 28 DS1 circuits in a point-to-point service
- GATEWAY 45H -- Hubbed DS3 wideband service that provides 28 DS1 circuits to one or more destinations from one point of origin.

“NETWAY” services which offer transport and data service solutions, include:

- NETWAY 100 - Provides LAN extension at native speeds of up to 100M bps
- NETWAY EXPRESS - Provides direct point-to-point or multi-point transport of high-speed data supporting a variety of protocols
- NETWAY NATIVE - Offers native-speed LAN transport facilities for Token Ring and Ethernet, as well as a number of other data transport communication protocols
- NETWAY NNI - Provides a gateway from a LAN to a long distance carrier or to homes and offices served by the local telephone company
- NETWAY VIDEO - Offers point-to-point signal transport, bi-directional video and audio, or a variety of multi-point origination and termination configurations;

Brooks also offers video compression to DS3 and interconnection with long-distance companies for video signal long-haul

- **NETWAY Frame Relay** - Supports data rates starting at 56K bps, that go up to 1.356M bps; a packet data service that supports applications such as LAN and SNA and other data environments. It also allows the consolidation of separate data networks into a single integrated service
- **NETWAY ATM** - Offered by Brooks Fiber on an individual case basis; a high-speed, low-delay transport facility that supports many internetworking requirements.

SERVICES FROM MCI

A partial listing of MCI's services are included here to show the breadth and scope of services offered by MCI, with emphasis on Special Access.

MCI Data Offerings include:

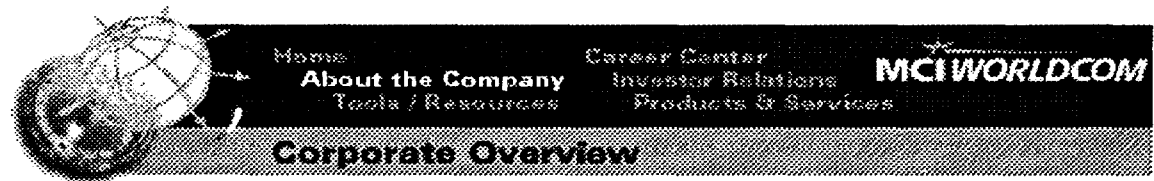
- Digital Private Line Service - Provides digital transport facilities for voice, analog data, digital data, video, fax, and fractional T1 applications. MCI's FT1 offering provides bandwidth in 56Kbps increments and clear channel 64Kbps increments.
- Digital Data Service (DDS) - Dedicated, full-duplex, synchronous data transport at speeds of 2400 to 56K/64K bps.
- HyperStream Frame Relay Service
- HyperStream SMDS - operates at data rates of 1.17M bps to 34M bps. (Available only on a case-by-case basis).
- Hyperstream ATM
- DataStream - Provides improved circuit switched data services at speeds of 56K to 1536K.
- ISDN PRI
- ISDN BRI
- Switched 56K-bps Service - data transmission at speeds of 2400 bps, 4800 bps, 9600 bps, 19.2K bps, and 56K bps.
- Terrestrial Digital Service 1.5 - Provides dedicated T1 data rates (1.544Mbps)
- Terrestrial Digital Service 45 - Offers dedicated, digital private line service at the T3 rate (44.736Mbps) provisioned on fiber optic transmission facilities with capacity equivalent to 672 voice circuits.
- Virtual Private Data Services (Switched T1/T3) - Can access data rates of up to 1.536Mbps and 44.736Mbps via dial-up methods
- Voicegrade Private Line Service - Offers dedicated transmission channels at rates of up to 9600 bps between two or more cities for voice and analog data applications.

MCI offers International Private Line Services, including:

- Analog Private Lines
- Crossborder Services - to Canada and Mexico
- MCI Fiberline - overseas transport via undersea, fiberoptic cable
- MCI Skyline - overseas transport via digital satellite
- MCI Multiline - Channels overseas private line traffic over fiber optic cable and satellite facilities
- Global Advantage - single point of contact for planning, implementing, managing, and maintaining the customer's MCI dedicated international network.

MCI Voice Services include:

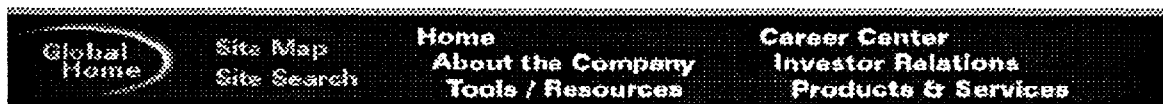
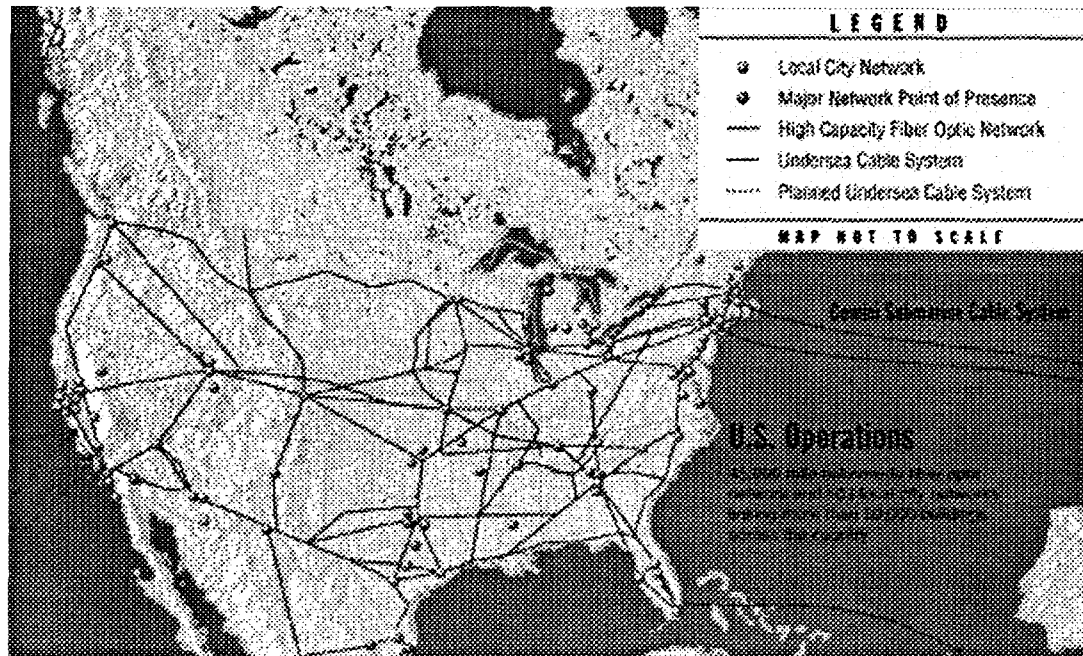
- Outbound Calling Services
- Toll-Free Services
- Calling Card Services
- Combined Inbound/Outbound Services
- MCI One - package with long distance, Internet access, e-mail, calling card, pager, cellular phone. Includes local phone service where available
- directlineMCI - national call-forwarding service for voice, fax, cellular calls, and paging.
- networkMCI Conferencing - audio, video, and document conferencing for point-to-point and multipoint conferences
- MCI Network Voice Mail



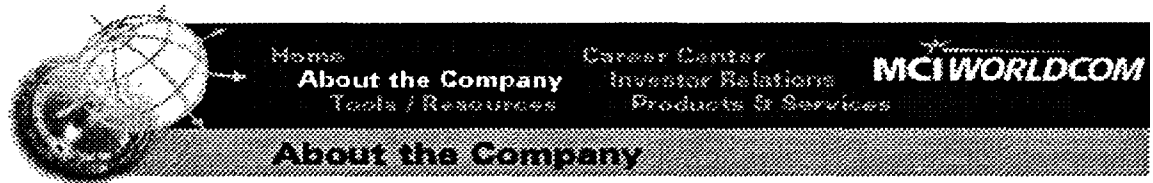
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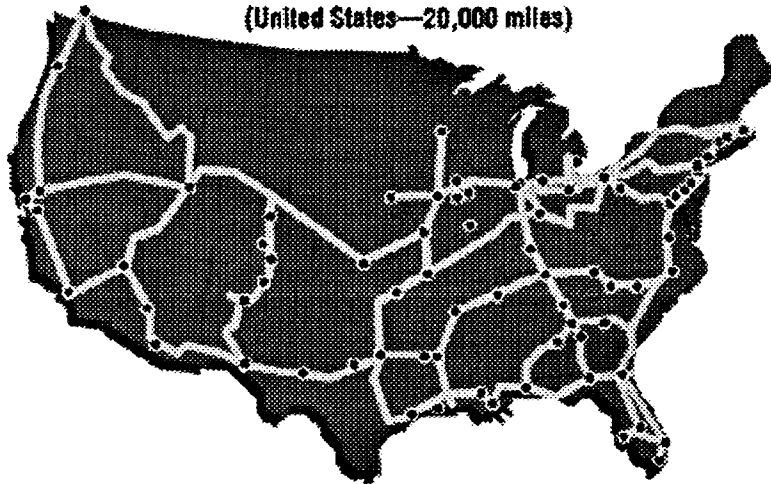


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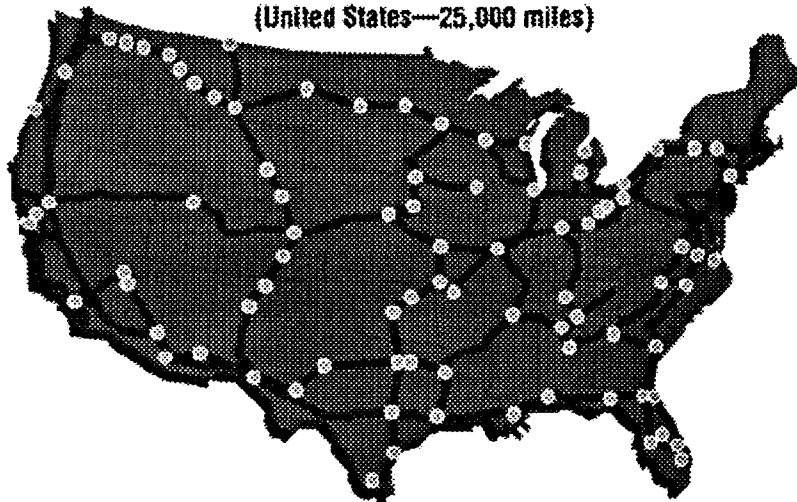
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US Long Distance Backbone

WorldCom - Standalone
(United States—20,000 miles)



MCI - Standalone
(United States—25,000 miles)



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MCI WorldCom On-Net Servicessm

Product Vision

In today's increasingly complex communications environment, businesses of all types must deal with different companies and networks, disparate products and services, and multiple contacts and contracts. It's not only confusing and often chaotic, but draws critical focus away from key business activities.

Now, imagine this:

A single access method for all of your voice, data and Internet services. The industry's most extensive portfolio of integrated products and services volume discounts across local-to-global services. One point-of-contact for all of your voice and data services, wherever you do business.

This is the vision of MCI WorldComsm - a vision that is now a reality with the introduction of MCI WorldCom On-Net Services.

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Integrated Services

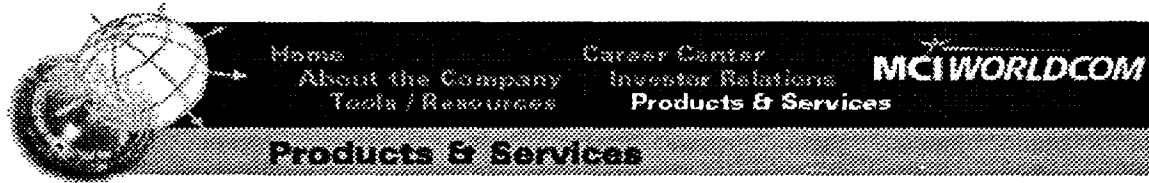
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MCI WorldCom offers a portfolio of enterprise services that are unmatched in the industry and backed by the most comprehensive service level guarantees available today. MCI WorldCom offers:

- The industry's broadest portfolio of data and Internet services
- One stop for network access, transport, applications, management, and outsourcing
- Extensive facilities-based services, including local-to-global-to-local interoperability across the platforms

Click on the services in the index to view more about MCI WorldCom's current data services.

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[-Diverse T1](#)

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MCI WorldCom offers a portfolio of enterprise services that are unmatched in the industry and backed by the most comprehensive service level guarantees available today. MCI WorldCom offers:

The industry's broadest portfolio of data and Internet services. One stop for network access, transport, applications, management, and outsourcing. Extensive facilities-based services, including local-to-global-to-local interoperability across the platforms.

MCI WorldCom's current data offering presently includes:

Private Line Services - A comprehensive product portfolio that is a seamless, facilities-based offering of local, long distance, and global network services.

Frame Relay Service - From the company that introduced frame relay, MCI WorldCom provides one of the most comprehensive frame relay offering through its seamless local-to-global connectivity and industry-leading advanced features.

Asynchronous Transfer Mode (ATM) - A global, feature-rich service based upon standards for cell-switched, connection-oriented data transmission that allows voice, video, and data communications over a single virtual network.

Remote LAN Dial - A customer's remote users can connect to their enterprise network and access applications as if they were attached to the LAN back at the office.

WAN Managed Services - A standard Wide Area Network (WAN) managed services outsourcing offering that provides a comprehensive solution for most customers' networking needs.

International Private Line - A portfolio of services that consists of dedicated private line choices to meet virtually all the needs of multinational customers.

Managed International Private Line - An international managed private line service that provides end-to-end services for global customers who require additional support and services beyond the traditional correspondent half-circuit, non-diverse international private lines.

Global ISDN - A solution for reliable bandwidth on demand for a customer's voice, data, and video.

Internet Access Services - A portfolio of services offering direct connections to the most robust and far-reaching Internet network at speeds from 56/64 Kbps to OC12.

Internet Dial - Offers local and toll free (800/888) dial-up connections to the Internet, with access from over 500 unique points of presence in the U.S.

Web Hosting - Allows companies to outsource the management of their Web site to MCI WorldCom for a fraction of the cost of maintaining the site in-house.

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On-Net Data — Private Line

MCI WorldCom's Private Line Services is a comprehensive product portfolio, encompassing local (where available), long distance (domestic), IPL (e.g., international correspondent-based services), and managed international private line services. The product portfolio is composed of the following private line services: Metro Private Line, Voice Grade (VG), Digital Private Line Services including DS0 and Fractional DS1, DS1, Fractional DS3, DS3, and the following SONET services: DS3, OC3/3c, and STS1. These domestic private line services encompass all speeds from Voice Grade to OC12c (Metro PL only). The international portfolio will include E1 and Fractional E1 speeds for international and global services. MCI WorldComSM is a seamless facilities-based provider of local, long distance, and global network services.

MCI WorldCom Private Line Services benefit customers by providing:

- A seamless solution, from local and long distance to global data options
- Comprehensive domestic coverage, both rural and domestic
- One-stop service and support
- Cost-effective solutions for an intraLATA scenario through Metro Private Line
- State-of-the-art network technology, resulting in a reliable network solution for mission-critical enterprises
- Comprehensive Service Level Agreements

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-Tiered T3

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-Frame to IP

-Digital Gateway to IP

-Managed Firewall

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Integrated Services

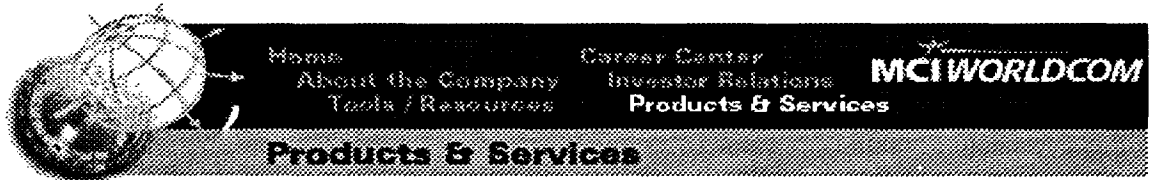
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On-Net Data — ISDN PRI

ISDN PRI is simply a set of standards that provides a common architecture for the development and deployment of digitally integrated communication services. The key to ISDN PRI is out-of-band signaling which permits the user's equipment and the network to exchange control and signaling information over a separate channel from that which carries user information. The result is a powerful, advanced application platform that helps business customers manage telecommunications and increase overall productivity better than ever before.

ISDN PRI provides transparent end-to-end digital connectivity; eliminates the need for separate, dedicated end-user networks for voice, data, facsimile, video, and other services; presents opportunities to develop enhanced network applications; and offers uniform user access to all telecommunications services.

Twenty-three B channels and one D channel form a Primary Rate Interface, or "23B+D." ISDN PRI is similar to the DS1 (T1) type of access. PRI B channels can be used for any combination of voice, data, and image transmissions at Nx64 Kbps. In addition, B channels can be grouped together to create wider bandwidths for applications like video transmission. The most practical, cost-effective way for end-users to obtain this kind of speed and capacity is through ISDN PRI.

MCI WorldCom offers robust ISDN services in the local, long distance and global marketplaces, providing customers with local-to-global-to-local integrated access and services. MCI WorldCom's Local ISDN PRI provides customers with integrated access to bandwidth-intensive applications in all of our local switch cities.

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Customer Benefits

- Speed of call setup saves money on access and improves customer satisfaction
- Less trunking (DALs) required between CPE and network saves money
- More information about the caller improves

- call handling and screening
- The caller can "send" more call information which improves the call
- More sophisticated, high-speed switched data applications are supported
- Better call management improves service

Need More Information?

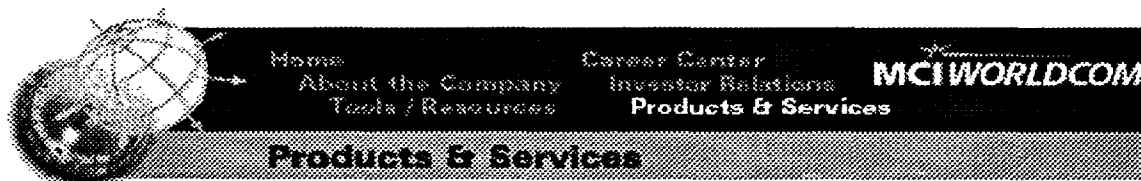
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On-Net Data — Internet Access Services

MCI WorldCom Internet Access Services offers the following set of dedicated Internet access products:

Flexible T1 — A leased-line circuit from a customer's premises to a MCI WorldCom Internet hub. The customer receives a full T1, but is only charged for the amount of bandwidth that is used.

Flexible T3 — A leased-line circuit from a customer's premises to a MCI WorldCom Internet hub. The customer receives a full T3, but is only charged for the amount of bandwidth that is used.

Tiered T3 — A leased-line circuit from a customer premises to a MCI WorldCom Internet hub. Customers receive a full T3 (45 Mbps) circuit, but the bandwidth is capped in 3 Mbps increments, limiting bandwidth usage.

Double T1 — Offers the use of two dedicated Internet T1 circuits from one router at a customer's site to a single MCI WorldCom Internet hub.

Diverse T1 — Offers the use of two dedicated Internet T1 circuits from one router at a customer's site to two diverse MCI WorldCom Internet hubs.

Shadow T1 — Provides a secondary Internet T1 that terminates at a different MCI WorldCom Internet hub, which serves as an emergency backup for the customer's primary T1.

OCDirect — Provides a connection to the MCI WorldCom Internet network via Asynchronous Transfer Mode (ATM). This service meets the needs of larger volume users and is available at full DS3 (45 Mbps) and tiered OC3 levels (60, 70, 80, 90, 100, 120, 140, 155 Mbps).

International Internet Access — Offers dedicated Internet access to corporate and multinational customers with locations outside of the United States that require a single source for their global Internet requirements.

Frame to IP — Allows customers to use their existing unchannelized MCI WorldCom frame relay port for access to the Internet.

Digital Gateway to IP — Provides a seamless,

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dedicated connection to the Internet, utilizing available channels on the customer's MCI WorldCom DS1 local access.

Remote VPN — Offers remote access to the Internet and provides a secure encrypted connection to the user's enterprise network.

Managed Firewall — A fully integrated Internet-based suite of security services, consisting of network, hardware, software, consulting, monitoring, and management tools to actively protect, scan, analyze, and assess an organization's Internet network vulnerabilities and exposures.

Web Hosting — Allows companies to outsource the management of their Web site to MCI WorldCom for a fraction of the cost of maintaining the site in-house.

Internet Service Level Agreement (SLA) — MCI WorldCom offers the most comprehensive service level agreements in the industry.

Need More Information?

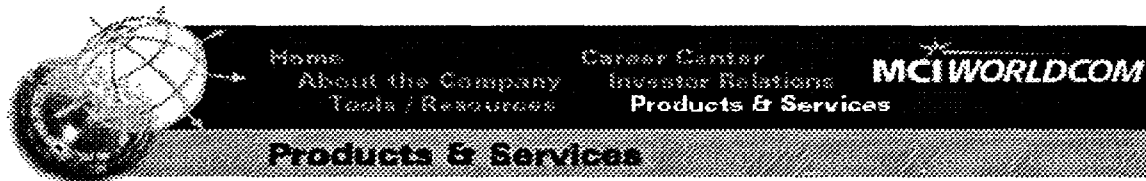
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On-Net Data — Frame Relay Service

Product Overview

Frame Relay Service is the premier high-speed packet data service used to support private business data communications on a public network. From the company that enhanced frame relay, MCI WorldComSM provides the most comprehensive frame relay offering through its seamless local-to-global connectivity and industry-leading advanced features.

Frame Relay Service is an international frame relay offering that serves customers throughout the world. MCI WorldCom has a presence in 16 countries outside the U.S., has access to hundreds of additional locations worldwide through NNIs, and offers one frame relay network from Asia to North America to Europe. This unique capability allows customers to provide locations overseas with the same seamless standard of quality as locations across the street.

Frame Relay Service has the following objectives:

1. **Access, anytime and anywhere.** Frame Relay Service offers an industry-leading complement of access options.
2. **Seamless local-to-global connectivity.** MCI WorldCom provides the industry's most comprehensive frame relay coverage.
3. **Advanced network architecture capabilities and performance.** Frame Relay Service uses state-of-the-art switching technology and up to OC-12 trunking.
4. **Comprehensive service level management.** Frame Relay Service addresses customer requirements for a wide variety of service management options and a high level of service performance, including an industry-leading Service Level Agreement (SLA).
5. **Enablement of next-generation network capabilities.** Frame Relay Service continues to lead the industry in helping customers evolve their frame relay networks.
6. **Competitive, flexible pricing options.** Frame Relay Service is competitively priced. Customers may choose from a wide variety of service pricing options and configurations that

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address both budget and network traffic requirements.

- 7. Unified, integrated service and support.**
Frame Relay Service customers have one contact, one contract, and one-call trouble resolution.

Customer Benefits

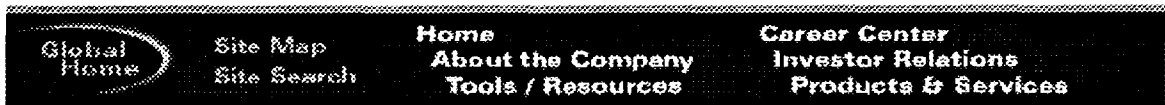
- Low cost of ownership through competitive pricing – including usage-based pricing
- Robust networking for local, national and international data needs
- Unsurpassed reliability through industry-leading SLAs and disaster recovery services
- Support for a wide range of applications, such as legacy, Web, voice, and video

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On-Net Data — ATM Services

Supporting multiple applications – voice, data, multimedia, and video — can be extremely costly and complex. With ATM, you have the flexibility to support your applications through a single network access interface. And, ATM is available nationwide and across the globe in several international locations whether in Chicago, Paris, or Tokyo.

ATM is a native cell-based, connection-oriented, data transmission service that allows you to integrate all types of traffic. It decreases the number of access lines you need and greatly simplifies technology management. Using ATM, you can:

- Leverage your buying power
- Decrease your overall costs
- Realize better economies of scale
- Reduce your equipment requirements
- Improve the overall efficiency of your networks

ATM Services offer customers scalable broadband solutions to meet their data networking requirements. Public ATM WAN services have proven to be an effective method for reducing the number of access lines, simplifying technology management, and providing a way to integrate all types of traffic.

ATM has proven very successful in supporting such applications as LAN interconnection, voice transmission, high-speed data transfer, private line circuit emulation, high-resolution imaging, high-definition video transport, multimedia communications, host-to-host internetworking, interactive and concurrent engineering, and PBX interconnect.

ATM offers numerous options to meet your data transport requirements. Access speeds range from DS-1 (1.544 Mbps) up to OC-12 (622 Mbps), including nxDS-1 (3 Mbps — 12 Mbps) Inverse Multiplexing over ATM (IMA) service. ATM also offers users the ability to prioritize service to support multiple types of traffic. MCI WorldComSM supports all five ATM service classes, as defined by the ATM Forum, letting you fine-tune your network based on speed and price.

ATM services are based on the latest ATM Forum

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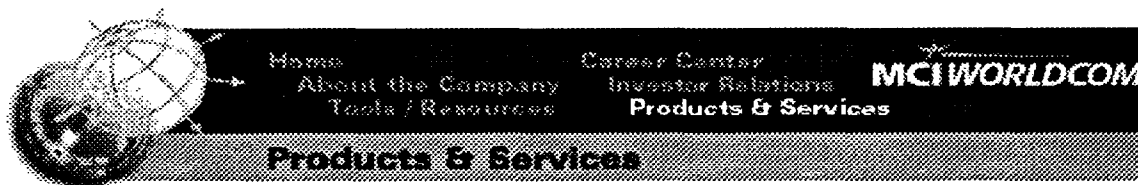
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specifications and international standards. Because ATM is standards-based, you are never locked in to a single vendor, so it's easy to integrate your network. MCI WorldCom is also an active participant in the ATM Forum and deeply committed to implementing only approved standards into our services.

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CPE Solutions

MCI WorldCom CPE Solutions offers a wide range of customer premises equipment and related services, with various procurement options to address your business needs for voice, data, local, Internet, and intranet. CPE Solutions offers many advantages to our customers that require CPE to support MCI WorldComSM services:

• [Turnkey Solution](#)

When you order your equipment directly from MCI WorldCom CPE Solutions, your equipment procurement and financing process is simplified and streamlined. Rather than having to deal with multiple vendors, you can:

- * Work with one contact – your MCI WorldCom Account Manager
- * Sign a contract with a single supplier
- * Make one call whenever your equipment needs servicing or repair

In short, MCI WorldCom CPE Solutions takes the work out of purchasing and maintaining your company's communications equipment.

• [Sales Alliance Program](#)

MCI WorldCom chooses best of breed manufacturers to provide equipment and services to complement MCI WorldCom's network services. A partial list of MCI WorldCom's best of breed manufacturers includes 3Com, Intergraph, Motorola, N.E.T., Newbridge, Nortel Networks, Siemens, and Sync Research.

• [Broad Range of Applications](#)

MCI WorldCom CPE Solutions provides equipment for many of today's most critical communications applications. They include:

- * Data: frame relay, switched digital services,

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private line, ATM, T-1, SMDS

* Internet: T-1, private line, Internet

* Voice: T-1, switched voice services, local service

• Features That Benefit Your Business:

1. Competitive pricing
2. Flexible payment options
3. Seamless implementation and comprehensive maintenance services
4. Joint marketing agreements with major equipment vendors to provide additional technical support

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APPENDIX 3

Competitor Profile: Hyperion

Hyperion Overview

Hyperion Telecommunications is one of the strongest Competitive Local Exchange Carriers (CLECs) in the area served by Bell Atlantic and the fourth largest Competitive Access Provider in the United States, providing special access services to interexchange carriers and business customers throughout much of the eastern U.S. Hyperion is a subsidiary of Adelphia Communications, the seventh largest cable TV operator in the United States, which owns 88% of the company. Founded in October of 1991 with only two partnerships in two markets, the company has expanded to 46 cities on 22 networks.

Hyperion's target market is aimed at large business customers, interexchange carriers (IXCs), government and educational end-users, value added resellers (VARs), and Internet Service Providers (ISPs). Examples of Hyperion's customers in the Bell Atlantic area include America On Line, Hershey Medical Center, HCA International, AT&T and MCI Worldcom.

Hyperion's Networks

<u>Fiber Optic Cable</u>	<u>Market Opportunity</u>	<u>Buildings Connected</u>	<u>Collocated CLEC Offices</u>	<u>Ownership</u>	<u>Access Line Sales</u>	<u>Switches</u>
5,363 Miles ¹	6.8 Million Business Access Lines (\$13.3 Billion Annually) ²	18 of 22 Networks Connected to 1,909 ³	Accommodating Facilities within 113 offices ⁴	10 of 22 networks are joint ventures. ⁵ 100% Interest in 7 Markets. ⁶	FY98:41,500 FY97: 7,000 ⁷	17 Lucent 5ESS or remote modules ⁸

FY = Fiscal Year

Hyperion utilizes local partners for network construction in an effort to reduce costs. Hyperion plans to fully construct 14 new networks as part of its effort to interconnect its service area

¹ New Paradigm Resources Group, 1998 Report on Local Telecommunications Competition.

² 1998 IPO Data Systems, Inc., *Hyperion Telecommunications*.

³ 1998 IPO Data Systems, Inc., *Hyperion Telecommunications*.

⁴ Prospectus, Hyperion Telecommunications, May 5, 1998.

⁵ Merrill Lynch, Kastan/Reingold, June 19, 1998.

⁶ Prospectus, Hyperion Telecommunications, May 5, 1998.

⁷ Prospectus, Hyperion Telecommunications, May 5, 1998.

⁸ Prospectus, Hyperion Telecommunications, May 5, 1998.

regions. These 14 new networks, combined with already established networks, will cover at least 8,100 route miles of fiber optic cable and connect to 210 ILEC central offices. Hyperion believes it will have a total addressable market opportunity of approximately 13.2 million business access lines, or about \$26.0 billion annually.⁹

Strategy

According to Hyperion, its goal is to become a leading telecom service provider in the markets it serves. The company has formulated a regionalized, facilities-based strategy to provide extensive, high capacity network coverage and broaden the range of products and services offered. In the future, the company plans to offer regional long distance using its own network, as well as installing a standard switching platform.

In addition, Hyperion wants to establish a local presence in the Bell Atlantic territory as a full service telecom provider by selling directly to business end-users and telecommunications providers. The company expects to enter 12 to 14 additional markets during 1998; seven of these markets will be in the territory served by Bell Atlantic. This expansion will allow Hyperion to reach roughly 60% of the business access lines that are currently in service in these markets.

Services

The company believes that by using its own networks, it will be able to provide faster, more reliable access line provisioning with higher operating margins and more responsive customer service and monitoring that is more cost-effective.

Traditional Access

- Special Access & Private Line
- Collocated Special Access
- Switched Access Transport Services
- Enhanced Data Services (offered in 7 markets, accounts for 7% of 1997 revenue)
- Plans to offer Internet services

Switched

Initiation of the following services began in 1997 and reached 16 markets in that year with plans to deploy service in the remaining markets.

- Transport
- Dial Tone
- Long Distance - Currently, 75 % of long distance traffic on average is terminated within 300 miles of the company's origination point.¹⁰

⁹ Prospectus, Hyperion Telecommunications, May 5, 1998.

¹⁰ New Paradigm Resources Group, 1998 Report on Local Telecommunications Competition.

Packaging and Bundling

Hyperion provides integrated, one-stop shopping packages to its customers as part of its competitive strategy for end-user business. Recently, the company also began reselling services and unbundled network elements. This has resulted in the company's rapid entry into the market and the expansion of its customer reach. Hyperion is additionally involved in other national supplier agreements with major IXC's such as AT&T, MCI, FON, and WCOM. For example, Hyperion entered into an agreement with MCI in June 1997 to become MCI's preferred provider of new end user dedicated access circuits, and conversions of end user dedicated access circuits from the incumbent LECs.¹¹

Hyperion Offerings in the Bell Atlantic Region

The company's markets are segmented into three main concentrations. The Northeast and Mid-Atlantic clusters are located within Bell Atlantic territory.

Network Data for Cluster Areas as of 12/31/98

<u>Cluster Area</u>		<u>Total # of Buildings Using Own Networks</u>	<u>Total # of Collocated Central Offices</u>	<u>Total # of Voice Switches</u>
Northeast	Buffalo, NY; Syracuse, NY; Vermont	334	12	3
Mid-Atlantic	Harrisburg, PA; Morristown, NJ; New Brunswick, NJ; Philadelphia, PA; Richmond, VA; York, PA; and Charlottesville, (Charlottesville is not served by Bell Atlantic)	576	59	6

Data from New Paradigm Resources Group, *1998 Report on Local Telecommunications Competition*.

¹¹ 1997 Falkner Information Services, *Hyperion Telecom Introduces Year End Results*.

Hyperion Networks Currently in Operation

Northeast Cluster

New York and Vermont are covered in this cluster.
155, 904 Voice Grade Equivalents are in place throughout this region.

<i>City</i>	<i>State</i>	<i>Building Name</i>	<i>Location</i>	<i>Comments</i>
Buffalo	NY	NewsChannels Hyperion	Main Place Tower 350 Main Street Suite 110 Buffalo, NY 14202	Partnership with TCI. Hyperion may buy TCI's interests. One Lucent 5ESS Switch installed. Interconnection agreement with Bell Atlantic.
Syracuse	NY	Hyperion Telecommunications of New York	6007 Fair Lakes Road East Syracuse, NY 13057	100% owned by Hyperion. One Lucent 5ESS switch installed. Interconnection agreement with Bell Atlantic.
Williston	VT	Hyperion Telecommunications of Vermont	18 Avenue B Williston, VT 37201	100% owned by Hyperion. Leases some capacity from Adelphia or its affiliates. One Lucent 5ESS switch installed. Interconnection agreement with Bell Atlantic.

Mid-Atlantic Cluster

New Jersey, Pennsylvania, and Virginia make up this cluster.
367,560 Voice Grade Equivalents are in place in this region.

<i>City</i>	<i>State</i>	<i>Building</i>	<i>Location</i>	<i>Comments</i>
New Brunswick	NJ	New Jersey Fiber Technologies	225 Old New Brunswick Road Suite 104 Piscataway, NJ 070504	Joint partnership with TCI and Sutton Capital: 19.7% owned by Hyperion, 79.3% by TCI, 1.0% by Sutton Capital. Interconnection agreement with Bell Atlantic.
Morristown	NJ	New Jersey Fiber Technologies	225 Old New Brunswick Road Suite 104 Piscataway, NJ 070504	Joint partnership with TCI and Sutton Capital: 19.7% owned by Hyperion, 79.3% by TCI, 1.0% by Sutton Capital. Interconnection agreement with Bell Atlantic.
York	PA	Hyperion Susquehanna Telecommunications	140 West Market Street York, PA 17401	50/50 interest partnership with Susquehanna Cable. One Lucent 5ESS remote switch module installed. Interconnection agreement with Bell Atlantic.

Philadelphia	PA	PECO Hyperion Telecommunications	One Bala Plaza Suite 326 Bala Cynwyd, PA 19004-1401	50% interest partnership with PECO Energy. One Lucent 5ESS switch installed. Interconnection agreement with Bell Atlantic.
Harrisburg	PA	Hyperion Telecommunications of Harrisburg	116 Pine Street Suite 301 Harrisburg, PA 17101	50/50 interest partnership with Lenfest Communications. One Lucent 5ESS switch installed. Interconnection agreement with Bell Atlantic and GTE.
Richmond	VA	Media One of Virginia	Wistar Center 5401 Staples Mill Road Richmond, VA 23228	Media One owns 63% interest in network. One Lucent 5ESS switch installed. Interconnection agreement with Bell Atlantic.

Hyperion Networks Under Construction

Northeast Cluster

<i>City</i>	<i>State</i>	<i>Building</i>	<i>Location</i>	<i>Comments</i>
Albany	NY			100% owned by Hyperion. One Lucent 5ESS switch installed. (Part of company's plan to install standard switching platform.) Interconnection agreement with Bell Atlantic.

Mid-Atlantic Cluster

<i>City</i>	<i>State</i>	<i>Building</i>	<i>Location</i>	<i>Comments</i>
Allentown, Bethlehem, Easton, Reading (ABER)	PA	PECO Hyperion Telecommunications	One Bala Plaza Third Floor Suite 326 Bala, Cynwyd, PA 19004-1401	PECO Energy has 50% interest in partnership. One Lucent 5ESS remote switch module to be installed. Interconnection agreement with Hyperion.
Scranton/Wilkes Barre	PA			100% owned by Hyperion. Leases some capacity from Adelphia or its affiliates. One Lucent 5ESS switch installed. Interconnection agreement with Bell Atlantic.

* Above information gathered from New Paradigm Resources Group, 1998 Report on Local Telecommunications Competition and Merrill Lynch, Kastan/Reingold, June 19, 1998.



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HYPERION**

HOME

Hyperion Telecommunications of Harrisburg is staffed by a team of dedicated telecommunications professionals with exceptional credentials in the fields of engineering, marketing and customer service. The senior management team brings extensive experience in fiber networks, regulated and competitive telephone business, long distance and local telephone operations, telecommunications and computer equipment, system design and maintenance, and strategic planning.

HTH employees are constantly exploring possibilities for new and improved services, as well as innovative ways in which to meet your needs. This combination of a rich skill set and a commitment to excellence makes HTH the right choice for you.

They can understand your needs and believe that their primary responsibility is your satisfaction.

The **Hyperion Telecommunications of Harrisburg** Network Control Center monitors the entire network 24 hours a day, every day of the year. Remote monitoring capabilities provide total visibility of fiber optic facilities, transmission equipment and power systems. The Network Control Center also controls network configuration and restoration, test the network and manages the network database. If performance ever deviates from the exacting standards set by HTH, or if system components are disturbed in any way, a technician will be dispatched immediately.

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Hyperion
TELECOMMUNICATIONS
of Harrisburg

**BUSINESS
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DS3

DS1

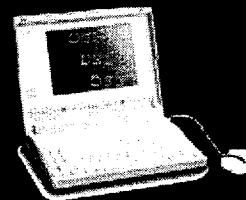
DS0

**FIBER VS.
COPPER**

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ARRAY OF SERVICES



Hyperion Telecommunications of Harrisburg's comprehensive fiber optic network makes it possible to offer a full array of services to meet your telecommunications needs. We are ready to serve you with a wide range of access and point-to-point services including:

DS0
Service

DS1
Service

DS3
Service

DDS Service:

dedicated digital facilities with superior performance specifications.

Digital Hubbing:

DS3 and DS1 economy with flexible provisioning.

Dim Fiber Service:

flexible fiber capacity for non-standard applications.

Program Video Service:

to serve the special needs of television and video conferencing

Disaster Recovery:

fast, reliable switching to alternative long distance carrier facilities or disaster recovery sites, in the unlikely event of a disaster.

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DS3 SERVICE



DS3 Service:

high capacity digital service at speeds of up to 44.736 Mps for voice data, and video needs.

DS3 Performance:

Hyperion Telecommunications of Harrisburg performance standards are among the most demanding in the industry, ensuring reliable access to interexchange carriers. LAN's, WAN's, and customer services.

DS-3 Performance Test (24 hours) Parameters Measured and Objectives:

Errored Seconds (ES) less than or equal to [(one-way facility length in miles) \times (0.0375)+(5 ES) \times 3 test days]

Error Free Seconds (EFS) greater than or equal to 99.82%

Events Seconds (EVS) less than or equal to [(one-way facility length in miles) \times (0.0015)+(1 EVS) \times 3 test days]

Bit Error Rate (BER) greater than or equal to [(one-way facility length in miles) \times (0.0005 \times E-9)] average over 3 days

Bit Error Rate (BER) greater than or equal to 2.0 \times E-9

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DS1

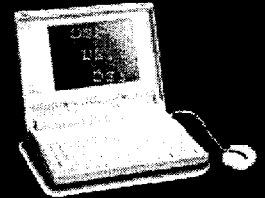
DS0

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DS1 SERVICE



DS1 Service:

24 channels, each at speeds of up to 64 Kbps (to a total capacity of 1.544 Mbps) for voice, data and video transmission.

DS1 Performance:

Hyperion Telecommunications of Harrisburg performance standards are among the most demanding in the industry, ensuring reliable access to interexchange carriers. LAN's, WAN's, and customer services.

DS-1 Performance Test (24 hours) Parameters Measured and Objectives:

Errored Seconds (ES) less than or equal to $[\text{one-way facility length in miles}] \times [0.0143] + [5 \text{ ES}] \times [24 \text{ test hour}]$

Error Free Seconds (EFS) greater than or equal to 99.928%

Severely Errored Seconds (SES) less than or equal to $[\text{one-way facility length in miles}] \times [0.0012] + [1 \text{ SES}] \times [24 \text{ test hour}]$

Outage Seconds = 0 outage seconds are allowed

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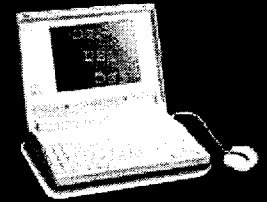
DS0

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DS0 SERVICE



DS0 Service:

individual facilities at speeds of up to 64 Kbps for PBX systems, off-premise extensions, and WATS lines.

DS0 Performance:

Hyperion Telecommunications of Harrisburg performance standards are among the most demanding in the industry, ensuring reliable access to interexchanging carriers. LAN's, WAN's, and customer services.

DS-0 Performance Test (24 hours) Parameters Measured and Objectives:

Errored Seconds (ES) less than or equal to [one-way facility length in miles] \times [0.00829]+[3 ES]

Error Free Seconds (EFS) greater than or equal to 99.958%

Severely Errored Seconds (SES) less than or equal to [one-way facility length in miles] \times [0.0012]+[1 SES]

Outage Seconds = 0 outage seconds are allowed

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BASIC TRUNK SERVICES

A basic trunk offers digital or analog connections for business that own public branch exchange (PBX systems). They can be equipped with Direct Inward Dial (DID) and DID number blocks for additional charges.

Analog Trunk Service - Provides you with a single, voice-grade, analog communications channel that can be used to place or receive calls through your PBX. Each trunk has the Touch Tone feature and may be configured into a variety of hunt groups with other company-provided trunks.

Digital Trunk Service - Provides you with a digital connection to your PBX operating at 1.544 Mbps that is multiplexed into 24 individual voice-grade telephonic communications channels. Each Digital Trunk contains dual tone multi-frequency (DTMF) or multi-frequency (MF) signaling, as specified by the customer. Digital Trunks may be configured into hunt groups with other company-provided Digital Trunks.

Optional Trunk Service Features

Direct Inward Dial (DID)
DID Number Blocks
Direct Outward Dial (DOD)

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Video conferences, high-speed data networks and the Internet have become integral parts of business, and many companies find that their communications solution has several pieces.

Let Hyperion work with you to design a customized package that may include voice, data and video communications. With Hyperion Local Dial Tone (LDT), you can use our network to pull together the services you want from the companies you prefer.

Increased competition for you business means better technology and better price-performance.

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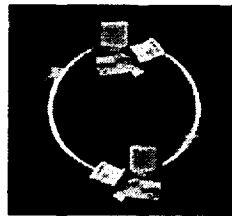
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BUSINESS SERVICES

Hyperion Telecommunications of Harrisburg now gives you a choice for your Local Dial Tone service provider.

Our state-of-the-art technology gives you a full range of services and system features that anticipates and meets your business communication demands, simply making your business work better.

Hyperion's 100% fiber optic, route diverse, self-healing SONET backbone is the alternative to your current service provider's network. We combine leading-edge network technology with the latest in central office switching to provide you with an array of services, as well as the features that make communications easier.



With Hyperion teleconnectivity you can call anyone, anywhere, at any time-and everyone can call you.

- Business Lines
- Direct Inward Dial
- Direct Outward Dial
- Combination Trunks
- 911 Service
- Local Directory Access
- Access to All Long Distance Carriers
- Access to Other Service Providers
- Monitoring and Diagnostics from Network Control Center (NCC)
- Operator Service

- Call Waiting
- Call Forwarding
- Conference Calling
- Speed Dialing
- Toll Restriction

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